

=> s xylene
L1 93972 XYLENE

=> s ?decene
L2 15629 ?DECENE

=> s l1 and l2
L3 504 L1 AND L2

=> s sulfonic acid
L4 55946 SULFONIC ACID

=> s l4 and l3
L5 10 L4 AND L3

=> d l5 1-10 abs

L5 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2002 ACS

AB A lubricant compn. comprising an oligomeric ketone which is a fluid and which is obtainable by reacting an alkene contg. from 4 to 20 carbon atoms with carbon monoxide in the presence of a catalyst which is obtainable by combining a transition metal or a compd. thereof and a bidentate ligand.

L5 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2002 ACS

AB This invention relates to a solid acid catalyst comprising porous highly fluorinated acidic polymer and process for manufg. it. The catalyst comprises at least 90% highly fluorinated acidic polymer and has a surface area of .apprx.0.01 m²/g to .apprx.5 m²/g. The catalyst is prepd. by exposing the polymer to a pressurized fluid such as SO₂ or CO₂, heating the polymer to above the softening point, reducing the pressure quickly thus expanding the polymer into a porous structure, and cooling the polymer. Examples of the highly fluorinated acidic polymer are perfluorinated **sulfonic acid** resin perfluorinated and sulfonyl fluoride polymer.

L5 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2002 ACS

AB A new versatile reagent, a perfluorosulfonate/trisilanol [(OH)₃Si(CH₂)₃(CF₂)₂O(CF₂)₂SO₃-M⁺], is synthesized and a series of surface-bound strong solid acid catalysts developed which are active for catalyzing a range of reactions (e.g., alkene isomerization, alkylations, and acylations). This catalyst, when bound on SiO₂, showed significantly higher activity for benzene and toluene alkylation, **m-xylene** benzylation, and isomerization of 1-butene than Nafion NR50 and Amberlyst-15 catalysts.

L5 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2002 ACS

AB Control by best demonstrated technol. of air pollution by org. compds. emitted during the reaction of feedstocks or chem. intermediates other than air in reactors in the manuf. of 173 specific chems. is established under the Federal Clean Air Act. All new, modified, and reconstructed distn. facilities must reduce volatile org. compd. (total org. compds., minus CH₄ and C₂H₆) emissions by 98% by wt. or to a concn. of 20 ppm by vol. on a dry basis cor. to 3% O, whichever is less stringent, or combust the emissions in a flare, or maintain a TRE (total resource effectiveness) index value >1.0 without the use of emission control devices. Methods of reducing emissions may include incineration, introduction of the vent stream into the flame zone of a boiler or process heater, or recovery with absorbers, condensers, or other devices. Reactor facilities with flow rates .ltoreq.0.011 scm/min, facilities in process units with prodn. capacities .ltoreq.1 Gg/yr, facilities with TRE index values >8.0, and batch processes are exempt from all or part of the std.

L5 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2002 ACS

AB Control by best demonstrated technol. of air pollution by org. compds. emitted during distn. processes in the prodn. of 211 specific chems. is established under the Federal Clean Air Act. All new, modified, and reconstructed distn. facilities must reduce volatile org. compd. (total org. compds. minus CH₄ and C₂H₆) emissions by 98% by wt. or to a concn. of 20 ppm by vol. on a dry basis cor. to 3% O₂, whichever is less stringent, or combust the emissions in a flare, or maintain a TRE (total resource effectiveness) index value >1.0 without the use of emission control devices. Methods of reducing emissions may include incineration, introduction of the vent stream into the flame zone of a boiler or process heater, or recovery with absorbers, adsorbers, condensers, or other devices. Distn. facilities that are a part of a unit that produces coal tar or beverage alc., that are designed and operated as a batch operation, that are a part of a polymer manufg. process subject to the polymer manuf. new source performance stds., or that use, contain, and produce no volatile org. compds. are exempt. Distn. facilities with TRE index values >8.0 are exempt from a portion of the requirements.

L5 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2002 ACS

AB The title resins contain .gtoreq.1 linkage of -[Si(R₁)(R₂)O]_mMR₃nR₄l (M = Cu, Mg, Sr, Ba, Zn, Sn, Pb, Zr, Mn, Fe, Co, Ni; R₁ = H, OH, alkoxy, C₁-18 alkyl, aryl; R₂ = H, OH, alkoxy, C₁-18 alkyl groups, aryl, siloxane, polysiloxane; R₃ = OH, alkoxy, modifier residue groups; R₄ = nonreactive O, H, alkoxy; m = .gtoreq. 1 integer; n = 0, >1 integer; l = 0-2; such that the sum of m + n + l is equal to the valence of M, and the R₁ and R₃ optionally form rings via metals having valence >2). **Xylene** 50, Me₂Si(OMe)₂ 50, Cu hydroxide 6, and octanol 1.8 parts were heated at 70-110.degree. with removal of MeOH to prep. a varnish.

L5 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2002 ACS

AB Desired product distributions of alkylarom. hydrocarbons are obtained by choosing appropriate reaction conditions for Friedel-Crafts alkylation of .gtoreq.1 arom. hydrocarbon with .gtoreq.1 .alpha.-alkene. Suitable reactants include C₈-24-.alpha.-olefins, C₆H₆, PhMe, isopropylbenzene, **xylene**, ethylbenzene, and tri- and tetramethylbenzenes. The alkylarom. hydrocarbons are then sulfonated to produce surfactants suitable for use in petroleum recovery. PhMe was alkylated with 1-**dodecene** in the presence of AlCl₃ at 7:1 PhMe-**dodecene** mol ratio and at 20.degree. intervals from -20.degree. to 60.degree.. The relative distribution of C₂-vs. C₄-alkylated products (in mol%) were 67.9:12.9 at -20.degree., 68.2:3.1 at 0.degree., 60.8 = 18.5 at 20.degree., 39.6:40.4 at 40.degree., and 41.2:37.85 at 60.degree..

L5 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2002 ACS

AB Monoalkyl sulfates were prepd. by reaction of hydrocarbon oils contg. olefinic, arom., or satd. aliph. hydrocarbons with 70-90 wt.% H₂SO₄ at <100.degree.. Thus, a hydrocarbon oil contg. 1-**dodecene** 20, **xylene** 35, and dodecane 45 wt.% was treated with 80 wt.% H₂SO₄ at 30.degree. for 4 h to give 95% esterification and 5% alkylation with 75% conversion, vs. 5, 95, and 93%, resp., with 95 wt.% H₂SO₄.

L5 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2002 ACS

AB Two new methods are presented for prepg. HO **sulfonic acids** (I) as well as an improved procedure for dehydrating I to sultones. 3-Hydroxy-1-**nonadecene** is treated with NaHSO₃ and a peroxide to give 83% Na 3-hydroxy-1-nonadecane-sulfonate. The corresponding acid, when refluxed in **xylene** gives the 59% sultone. Adding NaHSO₃ to an .alpha.-.beta.-unsatd. ketone and reducing with Raney Ni gives I. E.g. mesityl oxide gives Na 2-methyl-4-hydroxy-2-pentanesulfonate; refluxing the free acid in **xylene** gives 70% sultone.

L5 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2002 ACS

AB High-mol. alcs. are prepd. by heating satd. primary aliphatic alcs. contg.

more than 8 C atoms/mol. at temps. above 100.degree. in the presence of minor quantities of org. **sulfonic acids** and sometimes of solvents or diluents. The resultant alcs., contg. twice as many C atoms/mol. as the initial material, are useful as intermediates for the prepn. of auxiliary agents for textiles. Heating dodecyl alc. 200 and p-MeC6H4SO3H (I) 10 parts 6 hrs. at 220-50.degree. in a N atm. yields a residue which on vacuum distn. gives tetracosanol 142, b7.5-9 221-46.degree., as well as an oil 48, b10 85-191.degree., consisting of a mixt. of **dodecene** and dimerized products. Analogously, octadecanol, I, and **xylene** give a product, m. 59-9.5.degree. (from C6H6), mol. wt. 536, OH index 93, probably hexatriacontanol.

=> d his

(FILE 'HOME' ENTERED AT 22:47:28 ON 20 MAR 2002)✓

FILE 'CAPLUS, CAOLD' ENTERED AT 22:47:50 ON 20 MAR 2002

L1 93972 S XYLENE
L2 15629 S ?DECENE
L3 504 S L1 AND L2
L4 55946 S SULFONIC ACID
L5 10 S L4 AND L3

=> d l5 7-8 ibib kwic

L5 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1987:620278 CAPLUS
DOCUMENT NUMBER: 107:220278
TITLE: Selective alkylation of aromatic hydrocarbons
INVENTOR(S): Aldrich, Haven S.; Puerto, Maura C.; Reed, Ronald L.
PATENT ASSIGNEE(S): Exxon Production Research Co., USA
SOURCE: Fr. Demande, 18 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2589858	A1	19870515	FR 1986-11522	19860808
PRIORITY APPLN. INFO.:			US 1985-798074	19851114

AB Desired product distributions of alkylarom. hydrocarbons are obtained by choosing appropriate reaction conditions for Friedel-Crafts alkylation of .gtoreq.1 arom. hydrocarbon with .gtoreq.1 .alpha.-alkene. Suitable reactants include C8-24-.alpha.-olefins, C6H6, PhMe, isopropylbenzene, **xylene**, ethylbenzene, and tri- and tetramethylbenzenes. The alkylarom. hydrocarbons are then sulfonated to produce surfactants suitable for use in petroleum recovery. PhMe was alkylated with 1-**dodecene** in the presence of AlCl3 at 7:1 PhMe-**dodecene** mol ratio and at 20.degree. intervals from -20.degree. to 60.degree.. The relative distribution of C2-vs. C4-alkylated products (in mol%) were 67.9:12.9 at -20.degree., 68.2:3.1 at 0.degree., 60.8 = 18.5 at 20.degree., 39.6:40.4 at 40.degree., and 41.2:37.85 at 60.degree..

IT Aromatic hydrocarbons, reactions
RL: RCT (Reactant)
(C6-8, alkylation of, with **dodecene**, product distribution in)

IT **Sulfonic acids**, preparation
RL: PREP (Preparation)
(alkylarene, prepn. of, Friedel-Crafts alkylation in, product distribution of)

IT 112-41-4, 1-**Dodecene**
RL: USES (Uses)

(alkylation of alkylarom. hydrocarbons with, product distribution in)
 IT 71-43-2, Benzene, reactions 98-82-8, Isopropylbenzene 100-41-4,
 Ethylbenzene, reactions 1330-20-7, **Xylene**, reactions
 25551-13-7, Trimethylbenzene 25619-60-7, Tetramethylbenzene
 RL: RCT (Reactant)
 (alkylation of, with alkenes, product distribution in)
 IT 108-88-3, Toluene, reactions
 RL: RCT (Reactant)
 (alkylation of, with **dodecene**, product distribution in)

L5 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1982:162124 CAPLUS
 DOCUMENT NUMBER: 96:162124
 TITLE: Monoalkyl sulfates
 PATENT ASSIGNEE(S): Nippon Mining Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56164162	A2	19811217	JP 1980-65895	19800520
JP 63052624	B4	19881019		

AB Monoalkyl sulfates were prepd. by reaction of hydrocarbon oils contg. olefinic, arom., or satd. aliph. hydrocarbons with 70-90 wt.% H2SO4 at <100.degree.. Thus, a hydrocarbon oil contg. 1-**dodecene** 20, **xylene** 35, and dodecane 45 wt.% was treated with 80 wt.% H2SO4 at 30.degree. for 4 h to give 95% esterification and 5% alkylation with 75% conversion, vs. 5, 95, and 93%, resp., with 95 wt.% H2SO4.
 IT Esterification
 (of aliph. hydrocarbons, with **sulfonic acid**,
 monoalkyl sulfates from)

=> d his

(FILE 'HOME' ENTERED AT 22:47:28 ON 20 MAR 2002)

FILE 'CAPLUS, CAOLD' ENTERED AT 22:47:50 ON 20 MAR 2002

L1 93972 S XYLENE
L2 15629 S ?DECENE
L3 504 S L1 AND L2
L4 55946 S SULFONIC ACID
L5 10 S L4 AND L3
L6 0 S DODECECE
L7 3415 S DODECENE
L8 160 S L7 AND L1
L9 0 S L8 AND (METHANE SULFONIC ACID)
L10 330 S METHANE SULFONIC ACID
L11 1 S METHANE SULPHONIC ACID

FILE 'CAPLUS, CAOLD' ENTERED AT 23:12:57 ON 20 MAR 2002

L12 330 S METHANE SULFONIC ACID
L13 0 S L12 AND L7
L14 11 S L12 AND L1
L15 116 S ALKANE SULFONIC ACID
L16 0 S L15 AND L1 AND L2
L17 2 S L12 AND L2
L18 46 S METHYL SULFONIC ACID
L19 0 S (METHYL SULFONIC ACID)/RN

FILE 'REGISTRY' ENTERED AT 23:58:44 ON 20 MAR 2002

L20 0 S (METHYL SULFONIC ACID)/RN
L21 0 S (METHANE SULFONIC ACID)/RN
L22 0 S (METHANE SULFONIC ACID)/CN
L23 0 S (METHANE SULFONIC ACID)/CRN
L24 0 S ACTIC ACID/RN
L25 0 S (METHANE SULFONIC ACID)/CRN

FILE 'REGISTRY' ENTERED AT 00:01:33 ON 21 MAR 2002

L26 0 S (METHANE SULFONIC ACID)/CN
L27 1 S (ACETIC ACID)/CN
L28 0 S (METHANE SULPHONIC ACID)/CN
L29 0 S (METHYL SULPHONIC ACID)/CN
L30 STRUCTURE UPLOADED
L31 47 S L30
L32 1 S (75-75-2)/RN

FILE 'CAPLUS, USPATFULL, CASREACT' ENTERED AT 00:08:49 ON 21 MAR 2002

FILE 'CAPLUS, CAOLD, USPATFULL' ENTERED AT 00:08:59 ON 21 MAR 2002

L33 4156 S (75-75-2)/RN
L34 153 S L33 AND ALKYLATION
L35 0 S L34 AND OLEFINE
L36 50 S L34 AND OLEFIN
L37 33 S L36 AND (XYLENE OR BENZENE OR TOLUENE)
L38 4162 S 37 AND DECENE
L39 7 S L37 AND DECENE

=>

=> d his

(FILE 'HOME' ENTERED AT 22:47:28 ON 20 MAR 2002)

FILE 'CAPLUS, CAOLD' ENTERED AT 22:47:50 ON 20 MAR 2002

L1 93972 S XYLENE
L2 15629 S ?DECENE
L3 504 S L1 AND L2
L4 55946 S SULFONIC ACID
L5 10 S L4 AND L3
L6 0 S DODECECE
L7 3415 S DODECENE
L8 160 S L7 AND L1
L9 0 S L8 AND (METHANE SULFONIC ACID)
L10 330 S METHANE SULFONIC ACID
L11 1 S METHANE SULPHONIC ACID

FILE 'CAPLUS, CAOLD' ENTERED AT 23:12:57 ON 20 MAR 2002

L12 330 S METHANE SULFONIC ACID
L13 0 S L12 AND L7
L14 11 S L12 AND L1
L15 116 S ALKANE SULFONIC ACID
L16 0 S L15 AND L1 AND L2

=> s l12 and l2

L17 2 L12 AND L2

=> d l17 1-2 ibib kwic

L17 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:168087 CAPLUS

DOCUMENT NUMBER: 134:210386

TITLE: Lubricants containing oligomeric polyketones

INVENTOR(S): Boyde, Stephen; Cameron, Paul Alexander; Eastham, Graham Ronald; Tooze, Robert Paul

PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, UK

SOURCE: PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001016260	A1	20010308	WO 2000-GB3235	20000822
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: GB 1999-20516 A 19990901

OTHER SOURCE(S): MARPAT 134:210386

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 67-56-1, Methanol, reactions 75-75-2, **Methane sulfonic acid** 91-13-4, .alpha.,.alpha.'-Dibromo-o-xylene 106-51-4, 1,4-Benzoquinone, reactions 109-72-8, Butyl lithium, reactions 630-08-0, Carbon monoxide, reactions 829-85-6, Diphenylphosphine

872-05-9, 1-**Decene** 3375-31-3 6131-90-4, Sodium acetate trihydrate 6737-42-4, 1,3-Bis(diphenylphosphino)propane 67969-84-0, 1,3-Dibromo-2,2-diethyl propane 328952-85-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(lubricants contg. oligomeric polyketones)

L17 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1989:616732 CAPLUS
DOCUMENT NUMBER: 111:216732
TITLE: Recovery of transition metals from aqueous solutions
INVENTOR(S): Goodall, Brian Leslie; Grotenhuis, Paulus Alexander Maria
PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij B. V., Neth.
SOURCE: Brit. UK Pat. Appl., 16 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
GB 2213807	A1	19890823	GB 1987-29446	19871217
US 4880546	A	19891114	US 1988-285464	19881216
PRIORITY APPLN. INFO.:			GB 1987-29446	19871217

OTHER SOURCE(S): CASREACT 111:216732

IT 872-05-9, 1-**Decene**

RL: RCT (Reactant)

(hydroformylation of, spent catalyst from, rhodium recovery from)

IT 75-75-2, **Methane sulfonic acid**

RL: USES (Uses)

(in ethene carbonylation with methanol, palladium-contg. catalyst for)

WEST

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L1: Entry 1 of 3

File: EPAB

May 15, 1987

PUB-NO: FR002589858A1

DOCUMENT-IDENTIFIER: FR 2589858 A1

TITLE: Process for selective alkylation of aromatic compounds

PUBN-DATE: May 15, 1987

INVENTOR-INFORMATION:

NAME

COUNTRY

ALDRICH, HAVEN S

PUERTO, MAURA C

REED, RONALD L

ASSIGNEE-INFORMATION:

NAME

COUNTRY

EXXON PRODUCTION RESEARCH CO

US

APPL-NO: FR08611522

APPL-DATE: August 8, 1986

PRIORITY-DATA: US79807485A (November 14, 1985)

US-CL-CURRENT: 585/447

INT-CL (IPC): C07C 2/66

EUR-CL (EPC): C07C002/66; E21B043/22

ABSTRACT:

Process for preparing a reaction product having a desired distribution.

This product is obtained by carrying out a Friedel-Crafts alkylation reaction of one or more aromatic compounds with one or more linear alpha olefins at a preferred reaction temperature and sulphonation of the reaction product.

Application to the preparation of a surfactant used in the assisted recovery of oil.

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L1: Entry 2 of 3

File: DWPI

May 15, 1987

DERWENT-ACC-NO: 1987-171983

DERWENT-WEEK: 198725

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TITLE: Obtaining desired isomer distribution from friedel-crafts alkylation - of aromatic cpd. with linear alpha-olefin by adjusting reaction temp., surfactant for enhanced oil recovery then being obtd. by sulphonation

INVENTOR: ALDRICH, H S; PUERTO, M C ; REED, R L

PATENT-ASSIGNEE:

ASSIGNEE

CODE

EXXON PRODN RES CO

ESSO

PRIORITY-DATA: 1985US-0798074 (November 14, 1985)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
FR <u>2589858</u> A	May 15, 1987		018	

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
FR 2589858A	August 8, 1986	1986FR-0011522	

INT-CL (IPC): C07C 2/68; C07C 15/10; C07C 143/34; C09K 7/02; E21B 43/22

ABSTRACTED-PUB-NO: FR 2589858A

BASIC-ABSTRACT:

Process for obtaining the desired distribution of a reaction prod. from a Friedel-Crafts alkylation reaction of aromatic cpd.(s) with linear alpha-olefin(s) consists of: (a) determining experimentally the distribution of the reaction prod. at various reaction temps.; (b) from the results of (a), choosing a pref. reaction temp., enabling the desired distribution to be obtd.; and (c) carrying out the reaction at the pref. temp.

The aromatic cpd. may be benzene, toluene, isopropylbenzene, xylene, ethylbenzene, tri-tetramethylbenzene or their mixts. The linear alpha-olefins may be 8-24C.

USE/ADVANTAGE - With the further step of sulphonating the reaction prod., surfactants can be produced for enhanced oil recovery, with isomer distribution adjusted to the conditions of the reservoir. It may be then be possible to omit the alcohol previously added to micellar solns. of alkylaryl sulphonates. /2

TITLE-TERMS: OBTAIN ISOMER DISTRIBUTE FRIEDEL CRAFT ALKYLATED AROMATIC COMPOUND
LINEAR ALPHA OLEFIN ADJUST REACT TEMPERATURE SURFACTANT ENHANCE OIL RECOVER OBTAIN
SULPHONATED

DERWENT-CLASS: E14 H01 H04 Q49

CPI-CODES: E10-J02B3; H01-D06; H04-E; N04-D01;

CHEMICAL-CODES:

Chemical Indexing M3 *01*

Fragmentation Code

G010 G011 G012 G013 G014 G015 G016 G017 G018 G020

G021 G022 G029 G040 G100 M210 M211 M212 M213 M220

M222 M223 M224 M225 M226 M231 M232 M240 M281 M282

M283 M320 M414 M510 M520 M531 M540 M720 M903 M904

N203 N213 N221 N311 N318 N441 N511 N512 N513

Markush Compounds

198725-B3201-P

Registry Numbers

87140 1286M

Chemical Indexing M3 *02*

Fragmentation Code

A313 A940 C017 C100 C730 C801 C803 C804 C805 C806

C807 M411 M730 M903 M910 Q421

Registry Numbers

87140 1286M

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0862S; 1677S

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1987-071644

Non-CPI Secondary Accession Numbers: N1987-129062